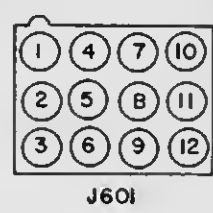
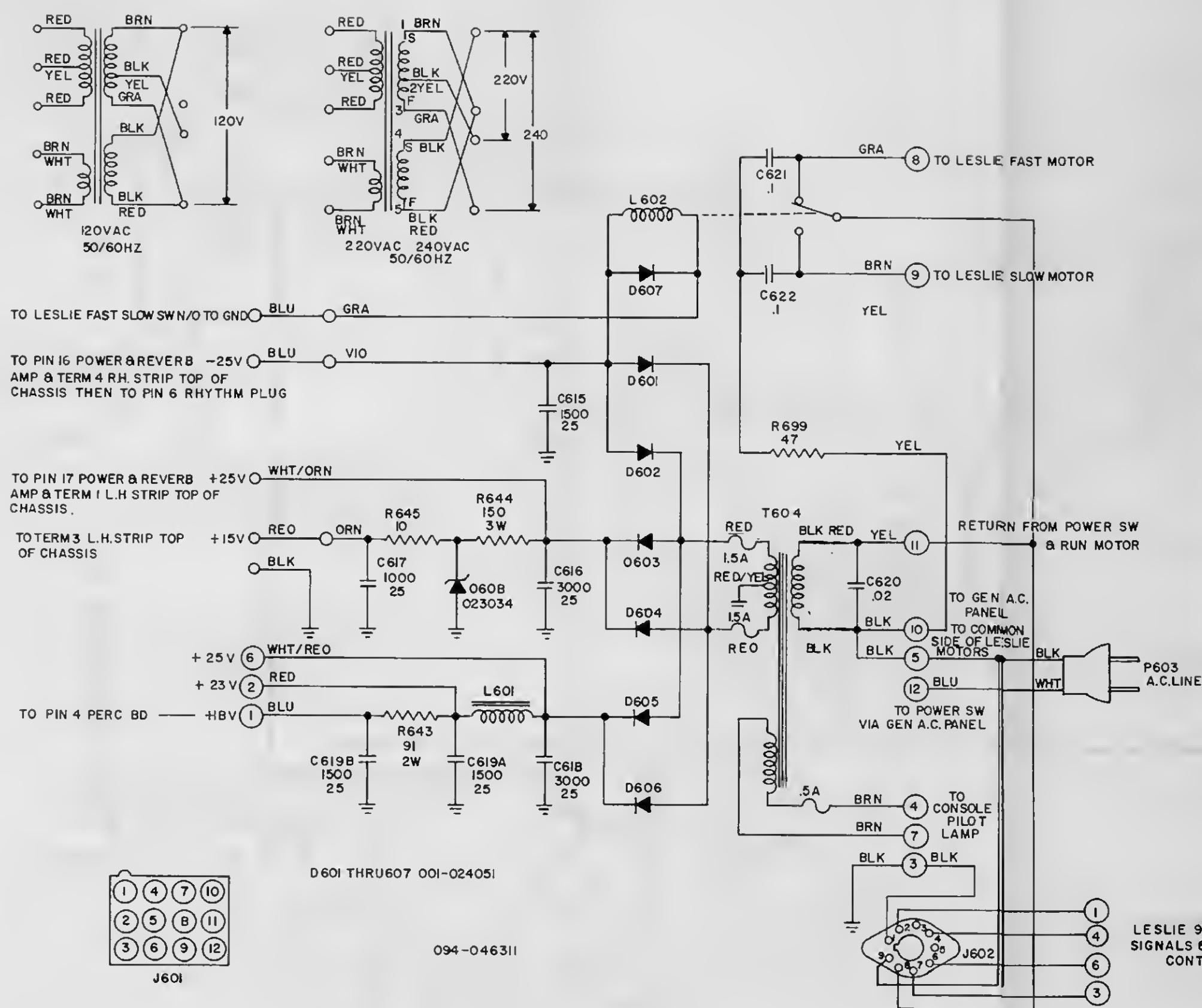


POWER & REVERBERATION AMPLIFIER BOARD (124-000176)			
PIN #	WIRE COLOR	TERMINATION	
1	Black	Pin #6 of Left Hand 10 Pin Terminal Strip Top of Power Supply	17 White/Orange
2	Orange	Pin #3 of Left Hand 10 Pin Terminal Strip Top of Power Supply	18 Yellow
3	Shield		19 Green
4	Clear	Blue Plug Output from Reverb Spring Unit.	20 Black
5	Shield	Cut Off	21 Black
6	Clear	"J" Cable Reverb II Switch Open End 100K Resistor.	22 White/Blue
7	Shield		23 White/Black
8	Clear	"K" Cable at Junction of 15 K & 5.6K Resistor between Reverb II & Volume Soft tabs.	24 N/C
9	Shield	To Swell Pedal	25 White/Red
10	Clear		26 White/Green
11	Shield		27 Shield
12	Clear	"H" Cable at Junction 2200 pf, 68K, 27K between Vibrato on Upper & Reverb I tabs.	28 Clear
13	Blue	T601	29 Shield
14	Red	T601	30 Clear
15	Black	T601	
16	Violet	C615 -25V. D.C.	31 Clear
			Shield

FIGURE 5-8
POWER & REVERB AMPLIFIER
BOARD 124-000176,
LAYOUT & SCHEMATIC



POWER SUPPLY PLUG (P601)
(EXTERNAL CONNECTIONS)

PIN #	WIRE COLOR	TERMINATION
1	Blue	Component & Switch Panel #1 Behind Reiterate Switch
2	Red	Component & Switch Panel #6 Behind Brilliance Tab
3	Black	Pin #1 Percussion Board
4	Brown	Pilot Light
5	Black	Tremolo Plug Pin #3
6	White/Red	Pin #12 Percussion Board
7	Brown	Pilot Light
8	Gray	Pin #2 Tremolo Plug
9	Brown	Pin #4 Tremolo Plug
10	Gray	Generator AC Panel
11	Yellow	Generator AC Panel
12	Blue	Generator AC Panel

J602 TONE CABINET PLUG
(INTERNAL CONNECTIONS)

PIN #	WIRE COLOR	TERMINATION
1	Black	Pin #3 of J601 Plug
2	Black	Ground Lug on Chassis
3	Green	Pin #1 Tremolo Control Plug
4	N/C	
5	White/Green	Pin #4 Tremolo Control Plug
6	N/C	
7	Brown	Pin #6 Tremolo Control Plug
8	Red	Pin #3 Tremolo Control Plug
9	Yellow	Pin #12 of 14 Pin Terminal Strip
10	Yellow	Common Terminal Tremolo Relay
11	Black	Pin #10 of J601 Plug
12	Black	Pin #11 of 14 Pin Terminal Strip

POWER SUPPLY 10 LUG TERMINAL STRIP (TOP SIDE)
LEFT HAND SIDE (VIEWED FROM REAR OF CONSOLE)

TERMINAL #	WIRE COLOR	TERMINATION
1	Red	From Anode D606 to 1.5 Amp Fuse to Pin #1 Right Hand 10 Lug Terminal Strip
2	Red	From Anode D605 to 1.5 Amp Fuse to Pin #2 Right Hand 10 Lug Terminal Strip
3	Orange	+15V. D.C. from C617
4	Orange	Pin #2 Power & Reverberation Board
5	Orange	Pin #7 Pedal Divider & Filter Board
6	Red	Pin #10 Pedal Keyer Board #1
7	Red	Pin #1 Auto Chord Board
8	N/C	
9	Black	Chassis Ground Lug
10	Black	Swell Pedal
11	Black	Ground Lug Back Left Side Upper Manual
12	N/C	
13	Blue	Pin #1 Rhythm III Plug
14	White/Orange	C616 +25V.
15	White/Brown	Fuse
16	White/Brown	Terminal #6 of 14 Pin Terminal Strip
17	N/C	

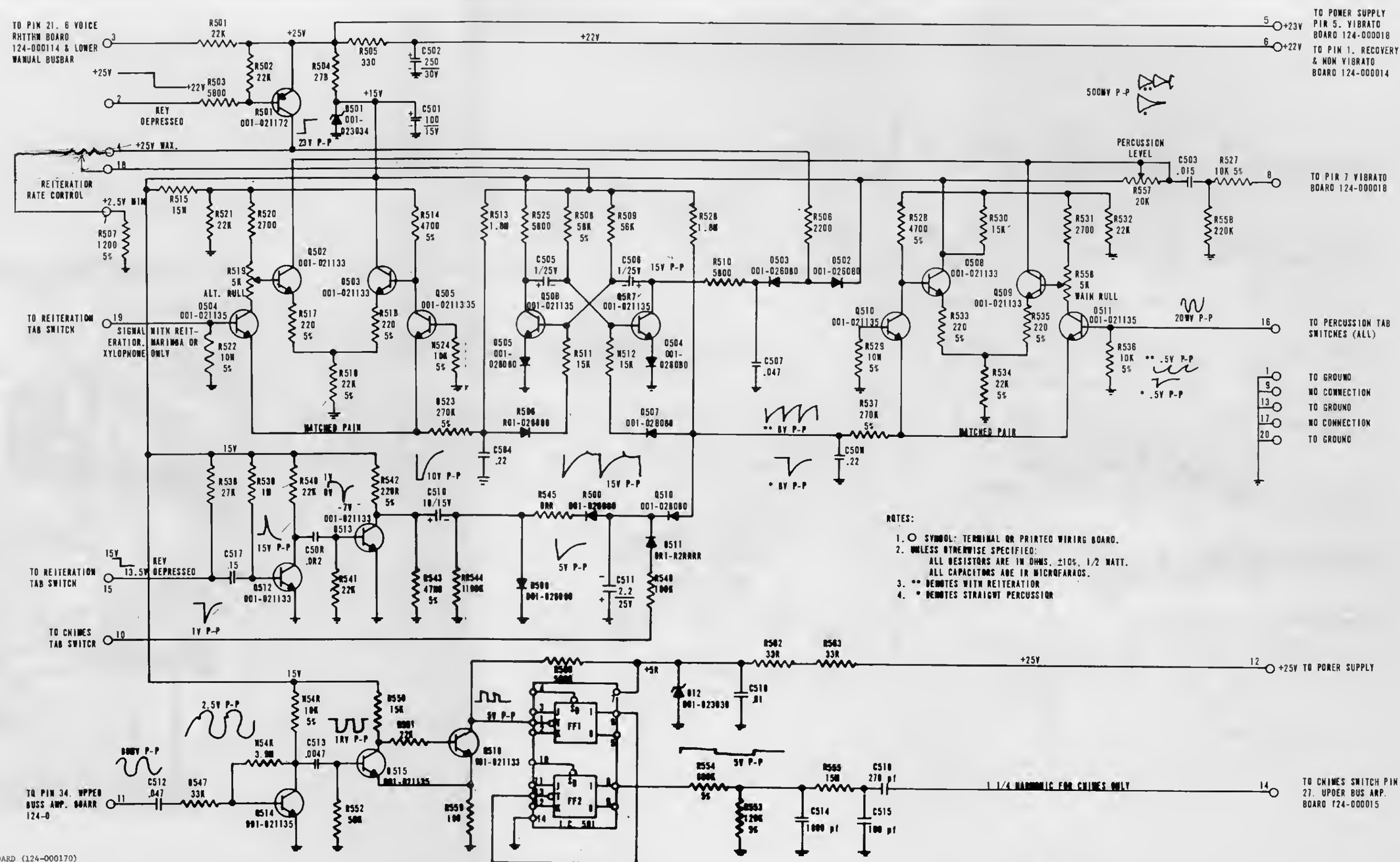
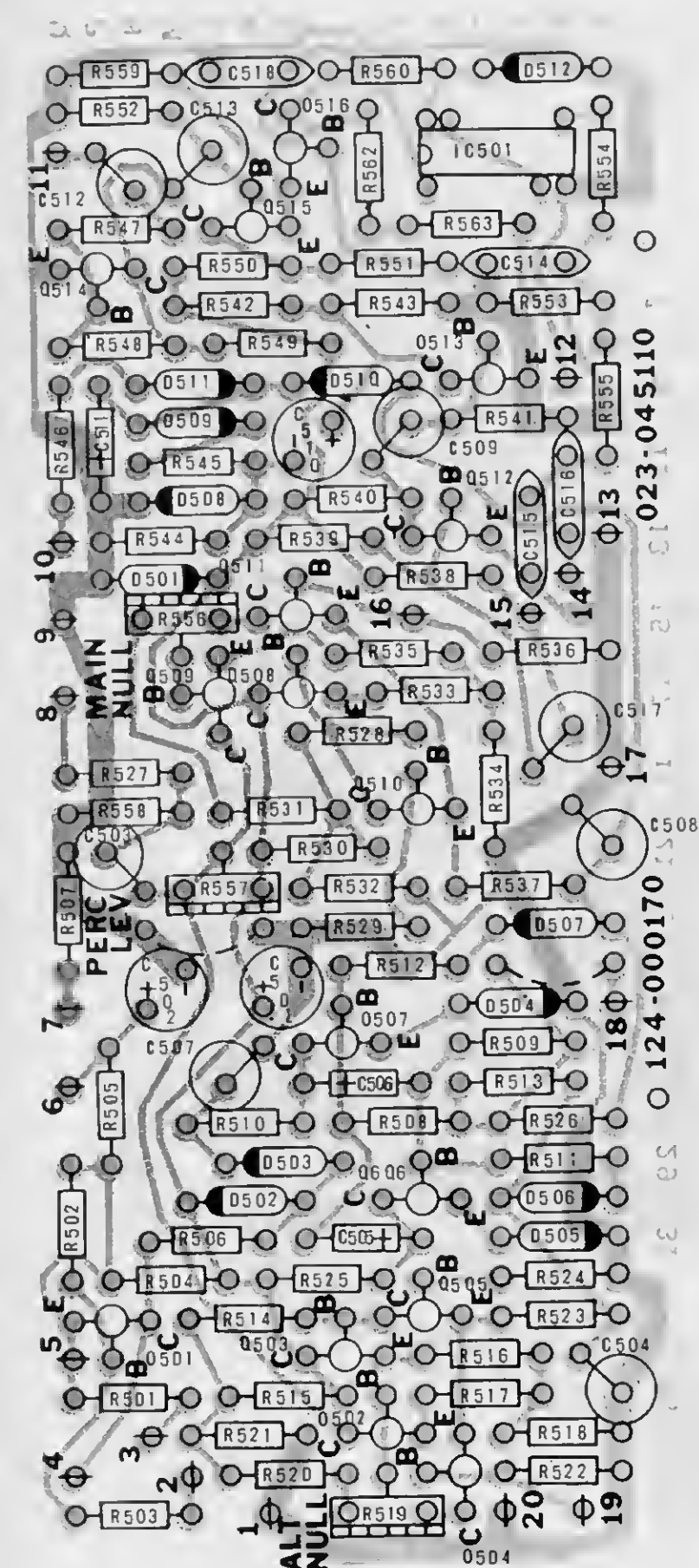
POWER SUPPLY 10 LUG TERMINAL STRIP (TOP SIDE)
RIGHT HAND SIDE (VIEWED FROM REAR OF CONSOLE)

TERMINAL #	WIRE COLOR	TERMINATION
1	Red	Power Transformer
2	Red	Fuse 1.5A to Terminal #1 of Left Hand Strip
3	Red	Power Transformer
4	Red	Fuse 1.5A to Terminal #2 of Left Hand Strip
5	Brown	Terminal #6 of 14 Terminal Strip
6	White	Expression Pedal
7	N/C	
8	Violet	To C615 -25V D.C.
9	Orange	To Cassette
10	Orange	To Pin #B of Auto Chord
11	Brown	Terminal #7 of 7 Terminal Strip
12	Black	Expression Pedal
13	N/C	
14	Gray	Tremolo Relay & Cathode of D-607
15	Gray	Lower Left Hand Endblock
16	White/Brown	Power Transformer
17	White/Brown	Fuse (.5A) to Terminal #9 of Left Hand
18	N/C	10 Terminal Strip

J601 PLUG POWER SUPPLY (12 PIN)
(INTERNAL CONNECTIONS)

PIN #	WIRE COLOR	TERMINATION
1	Blue	Junction C619B and R643 +15V. D.C.
2	Red	Junction C619A, R643, & L601 +23 V. D.C.
3	Black	Pin #1 of J602 Tremolo Plug
4	Brown	Pin #6 of 14 Pin Terminal Strip Underside of Power Supply Chassis
5	Black	Pin #11 of 14 Pin Terminal Strip Underside of Power Supply Chassis
6	White/Red	To C618 & L601 +25 V. D.C.
7	Brown	To Pin #B of 8 Pin Terminal Strip Underside of Power Supply Chassis
8	Gray	Pin #1 of 8 Pin Terminal Strip Underside of Power Supply Chassis
9	Brown	Pin #8 of 8 Terminal Strip Underside of Power Supply Chassis
10	Black	Pin #9 Tremolo Plug
11	Yellow	Pin #12 of 14 Pin Terminal Strip Underside of Power Supply Chassis
12	Blue	Pin #14 of 14 Pin Terminal Strip Underside of Power Supply Chassis

FIGURE 5-9
POWER SUPPLY CHASSIS
124-000176 - 124-000178
SCHEMATIC



PERCUSSION BOARD (124-000170)

PIN #	WIRE COLOR	TERMINATION
1	Black	Pin #3 of J601
2	Red	Reiterate Switch
3	N/C	
4	Yellow	Reiteration Rate Control Pot
5	Red	Tie Terminal Behind Brilliance Tab
6	Red	Pin #5 Vibrato Board
7	Yellow	Pin #1 Recovery & Non-Vibrato Board
8	Violet	Reiteration Rate Control Pot
9	Violet	Pin #7 Vibrato Board
10	N/C	
11	Gray	Chimes Switch
12	Brown	Pin #34 Upper Manual Bus Amplifier Board
13	White/Red	Pin #6 of J601 in Power Supply
14	Black	Grounding Lug Back of Upper Manual
15	Orange	Chimes Switch
16	White	Reiterate Switch
17	Clear	Banjo Switch, Lower Contact
18	Shield	Banjo Switch, Upper Contact
19	N/C	
20	White	Reiteration Rate Control Pot
	Clear	Reiteration Switch, Lower Contact
	Shield	Reiteration Switch, Out Off

FIGURE 5-10
PERCUSSION BOARD 124-000170,
LAYOUT & SCHEMATIC

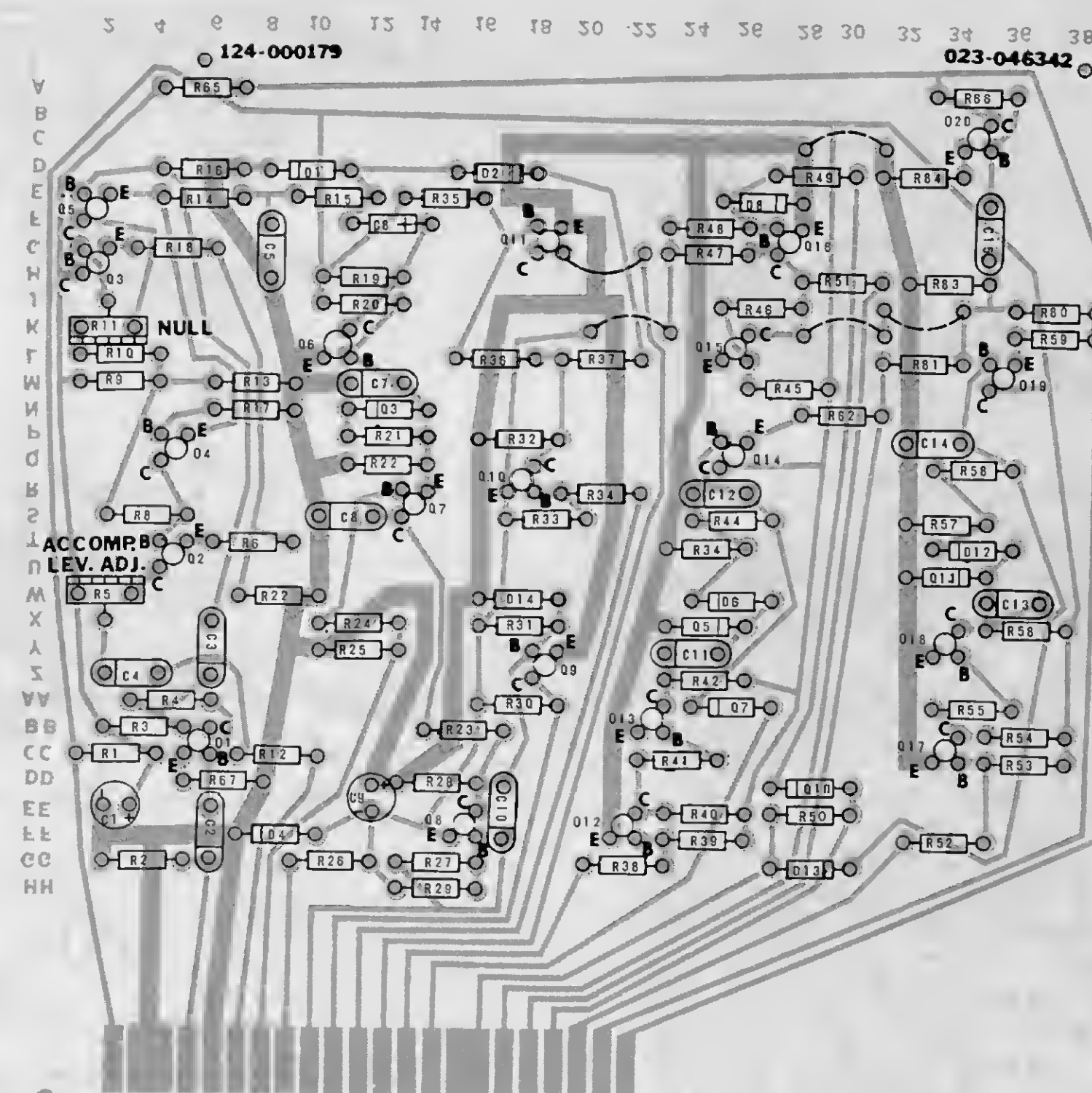
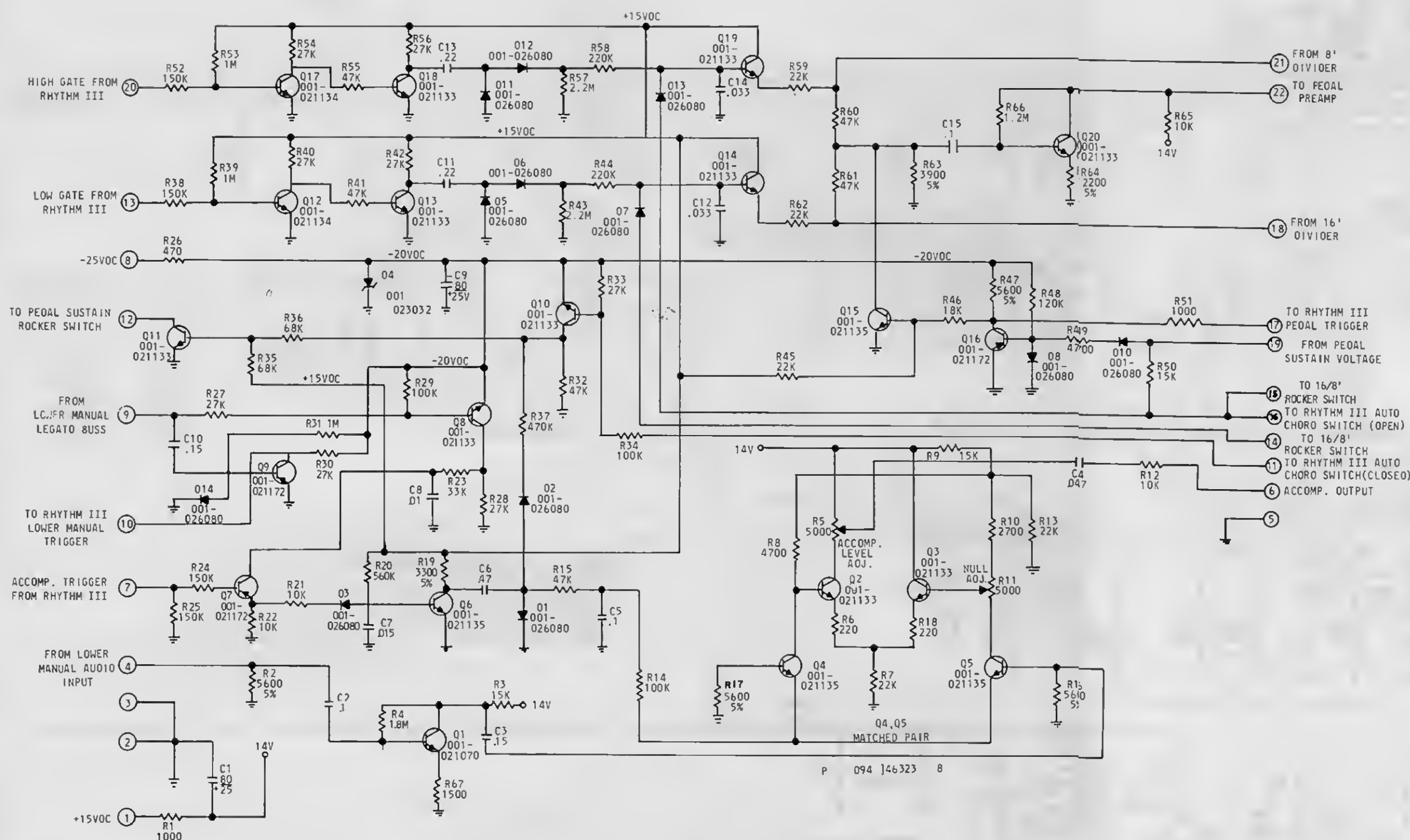


FIGURE 5-11
AUTO CHORD
BOARD 124-000179,
LAYOUT & SCHEMATIC

AUTO CHORD BOARD (124-000179)					
PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION
1	Red	Pin #4 left hand 10 lug terminal strip top of power supply chassis +15 V D.C.	11	Blue	Pin #4, P5 Rhythm Plug
2	Black	Ground lug back of Upper Manual	12	White/Blue	Lower Manual left hand endblock, pedal
3	N/C		13	Gray	16'/8' rocker tab.
4	Clear	Cable "A" Switch Panel & Components Board #1 Contact of Lower Manual Tonebars Tab	14	White	Pin #8, P5 Rhythm Plug
		Switch	15	White/Black	Lower Manual left hand endblock, pedal
	Shield	Lower Manual Ensemble 8 Switch Contact	16	White/Black	16'/8' rocker tab.
5	Shield	Cut Off	17	White/Brown	Pin #5, J5 Rhythm Plug
6	Clear	Cable "B" Switch Panel & Components Board #1 junction shield cable & 4.7 K	18	White/Red	Pin #7, J5 Rhythm Plug
7	Yellow	Pin #10, P5 Rhythm Plug	19	White/Violet	Pin #11, Pedal Filter & Divider Board
8	Orange	Pin #6 right hand 10 lug terminal strip top of power supply chassis.	20	White/Orange	Pedal Keyer Board #1 Pin #8
9	Brown	Lower Manual 8rush Keying Bus	21	White/Yellow	Pin #9, J5 Rhythm Plug
10	Green	Pin #6, P5 Rhythm Plug	22	Clear	Pin #12 Pedal Filter & Divider Board
				Shield	Pin #2 Pedal Filter & Divider Board
					Pin #6 Pedal Filter & Divider Board

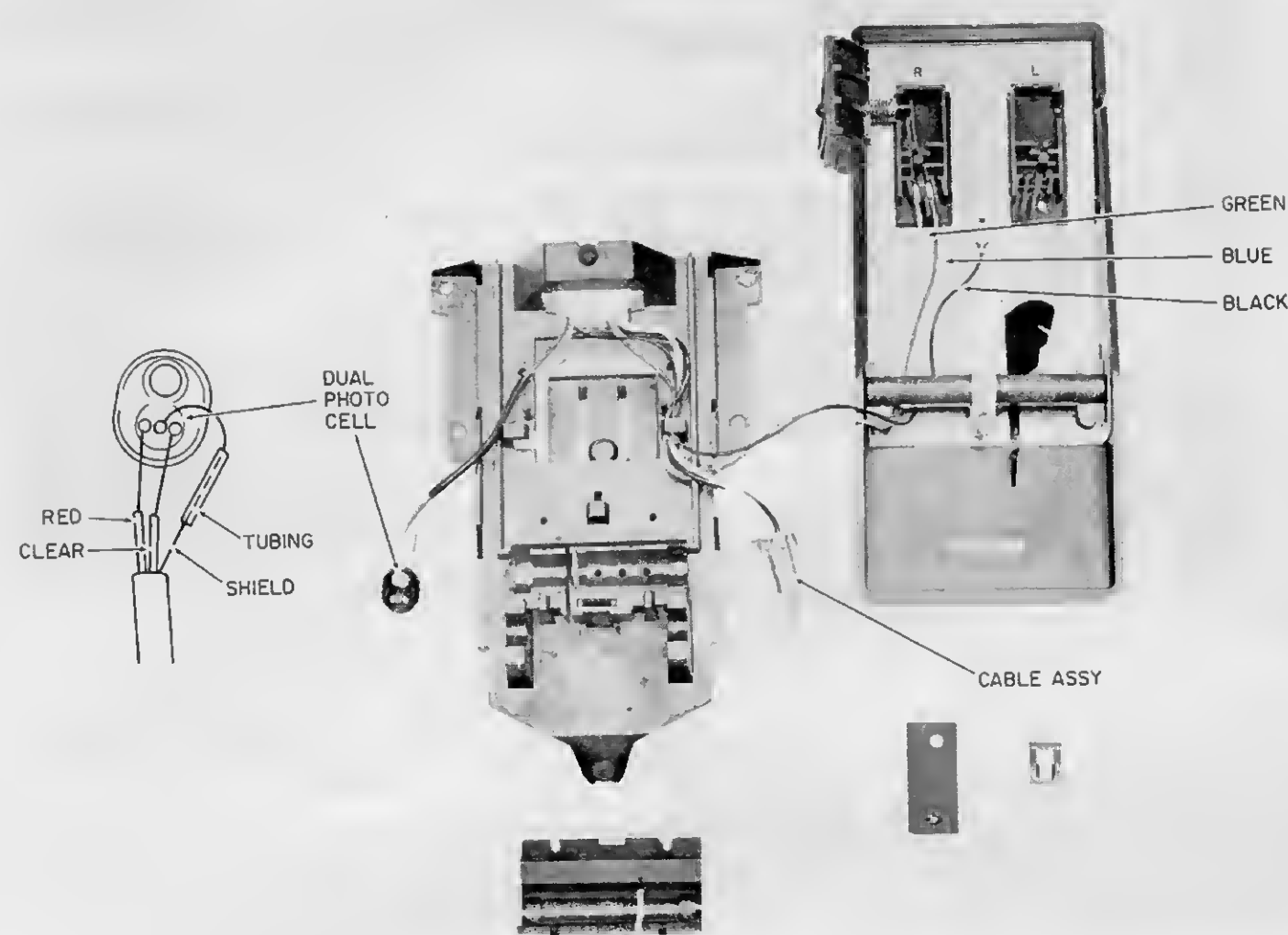


FIGURE 5-12
SPECIAL EFFECTS END BLOCK
125-000073, LAYOUT

EXPRESSION PEDAL (123-000061)

INTERNAL CONNECTIONS

PIN #	WIRE COLOR	TERMINATION
1	Red	Dual Photo Cell Cable
2	Bare	
3	Clear	
4	N/C	
5	N/C	Foot Switch Right Side
6	N/C	
7	N/C	
8	N/C	
9	N/C	Expression Pedal Lamp
10	Green	
11	Blue	
12	N/C	
13	N/C	
14	Black	
15	Black	

EXPRESSION PEDAL (123-000061)

EXTERNAL CONNECTIONS

PIN #	WIRE COLOR	TERMINATION
1	Clear - Cable	Pin #10 Power & Reverb Amplifier Board
2	Shield	Common for Pins 1 & 3
3	Clear - Cable	Pin #31 Power & Reverb Amplifier Board
4	N/C	
5	N/C	
6	N/C	
7	N/C	
8	N/C	Pin #3 Plug J5 Rhythm III
9	N/C	
10	Brown	Pin #7 Left Hand 10 Lug Terminal
11	Black	Strip Top of Power Supply Chassis
12	N/C	Pin #3 of Right Hand 10 Lug Terminal
13	N/C	
14	White	Strip Top of Power Supply Chassis
15	Black	Pin #6 of Right Hand 10 Lug Terminal
		Strip Top of Power Supply Chassis

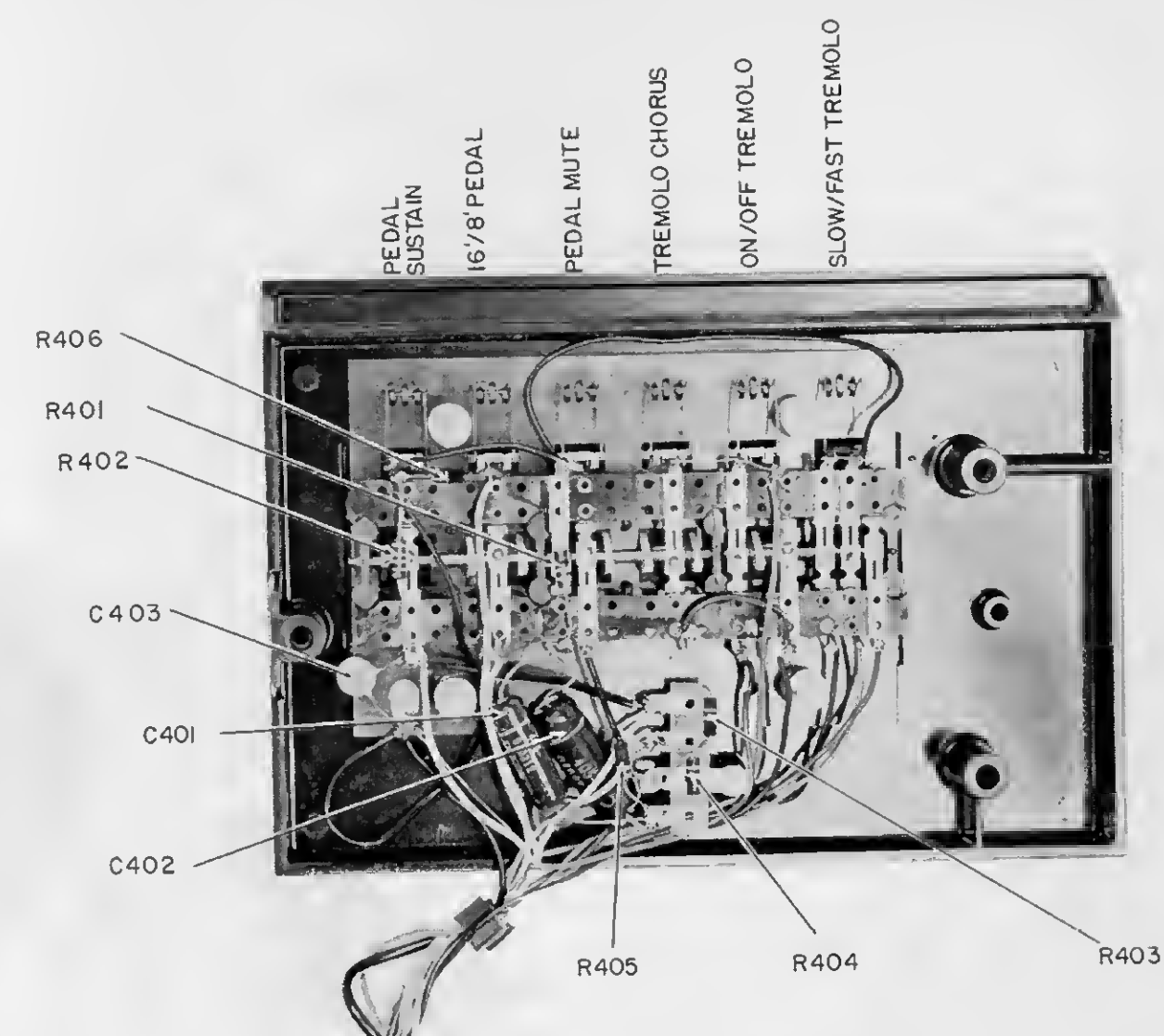


FIGURE 5-13
EXPRESSION PEDAL
123-000061, LAYOUT

Item No.	Part Name	Part No.
1,2 27,28	Pan Head Thread Cutting Screw	907-030314
3	Cover Plate	041-042236
4,22	Brush and Lug Assembly	060-042609
5,6 21,24	#8 Keys Hex Nut	999-001264
7	Drive and Endcap Assembly	060-042601
8,9 18,19	Sems Hex Head Machine Screw	831-020314
10	Rotor and Pin Assembly	060-042597
11	Spacer Washer (Phenolic)	999-044671
12,13	Washer	999-044395
14	Grounding Spring	012-043907
15,17	Mounting Post	044-042865
16	Segmented Scanner Tube	045-042112
20	Endcap and Bearing Assembly (Stationary)	060-047300
23	Cable Clamp	013-042866
25	Cover Plate	041-042237
26	Terminal Lug	007-002974
29	Snap-On Contact (16-Used)	030-042583

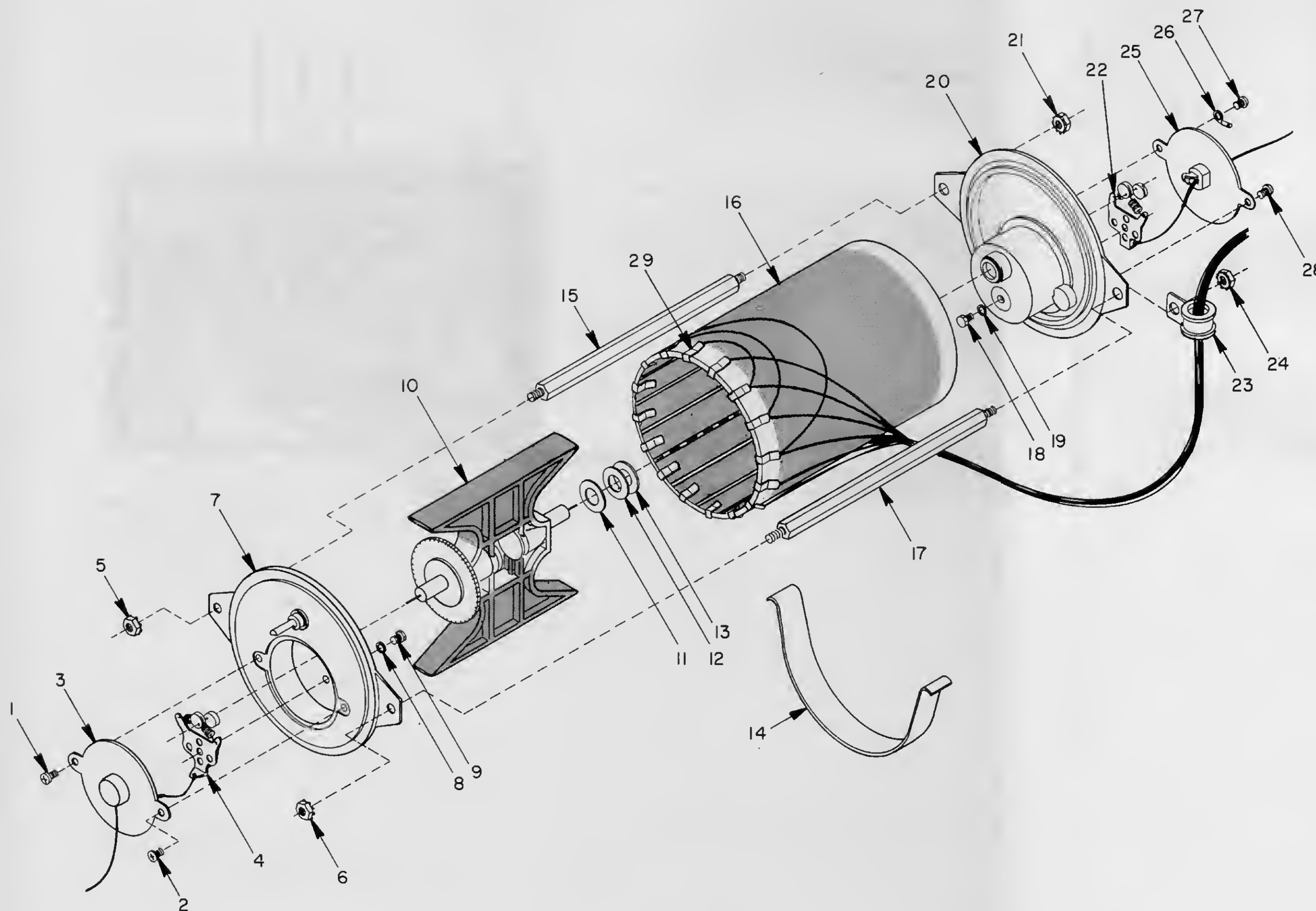
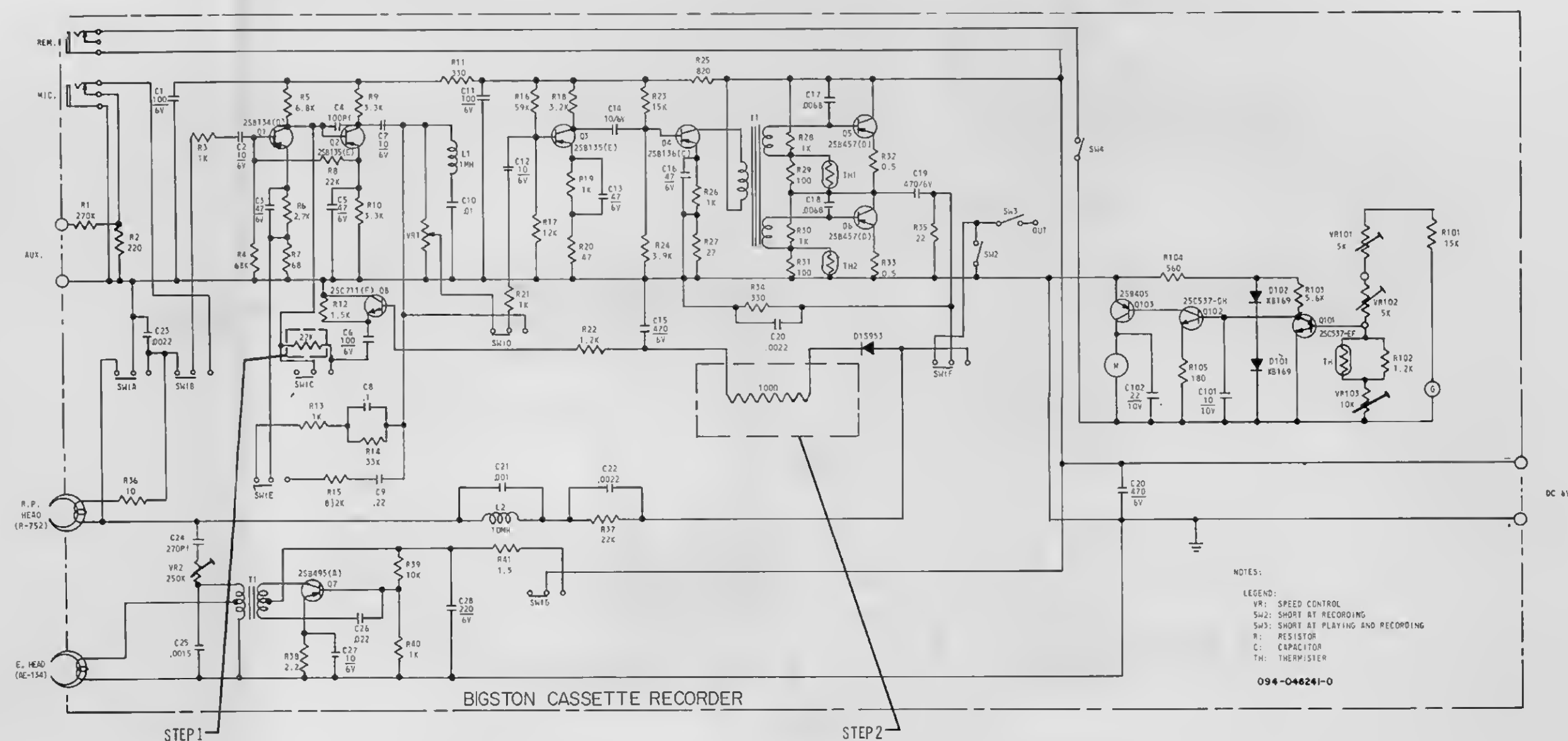
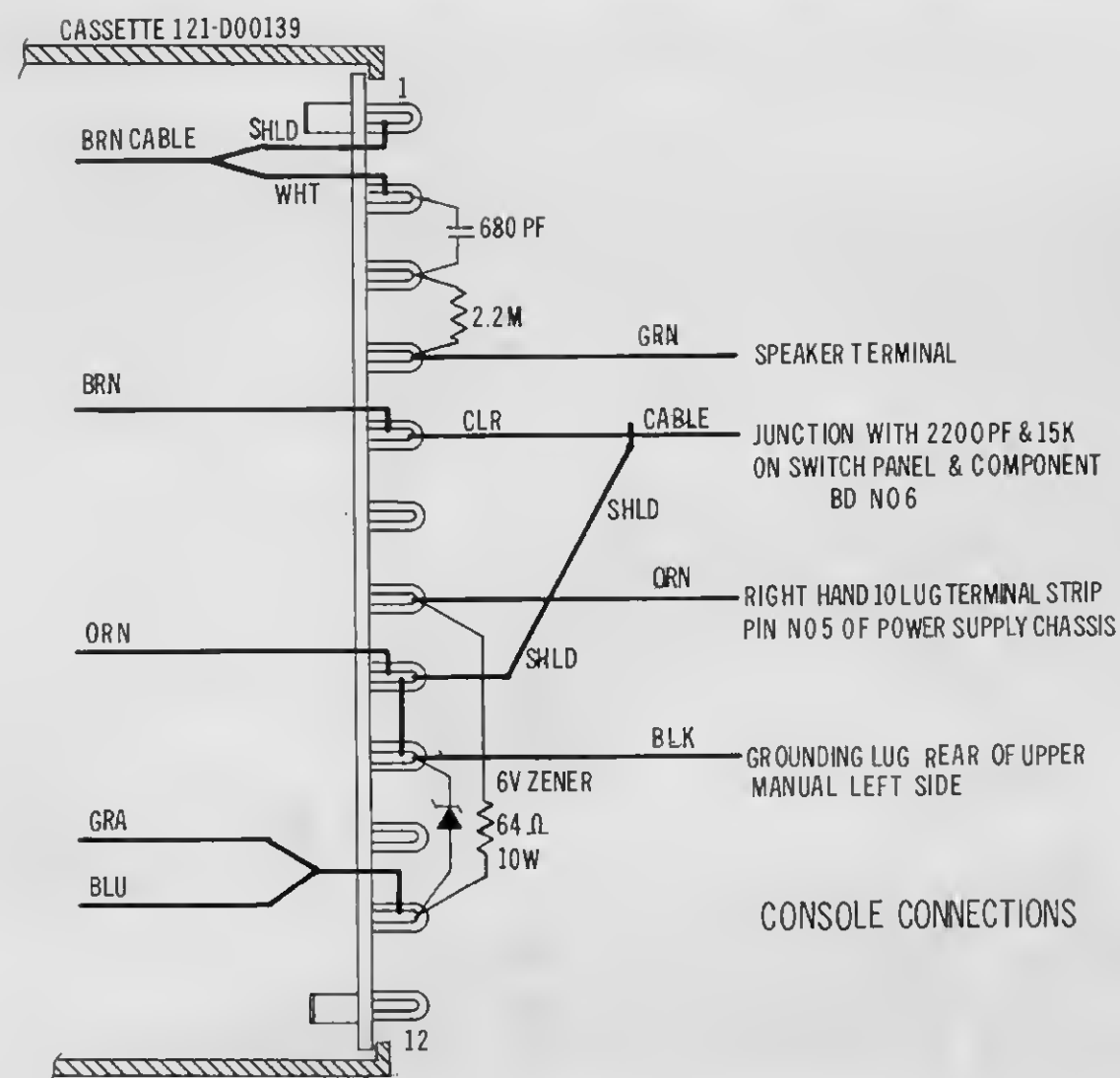


FIGURE 5-14
DRUM SCANNER
066-042874



CASSETTE RECORDER VOLUME FLUCTUATIONS

In order to correct the volume level changes which take place when recording directly from these models, we suggest making the following changes.

Refer to Figure A and Cassette Schematic.

1. Add 22K (1/2 or 1/4 watt) resistor across record terminals (one end on C6) of SW-1C to keep C6 polarized.
2. Add 100 ohm (1/2 or 1/4 watt) resistor in series with diode D1 (one end of C15) to prevent overcharging of C15 on beginning of large signals.
3. Operate each unit for 5 minutes in the record mode.
4. Test cassette by recording a high level signal for a period of one minute.

NOTE

If Large amplitude of level changes are observed, replace C6 or return cassette unit to factory for replacement.

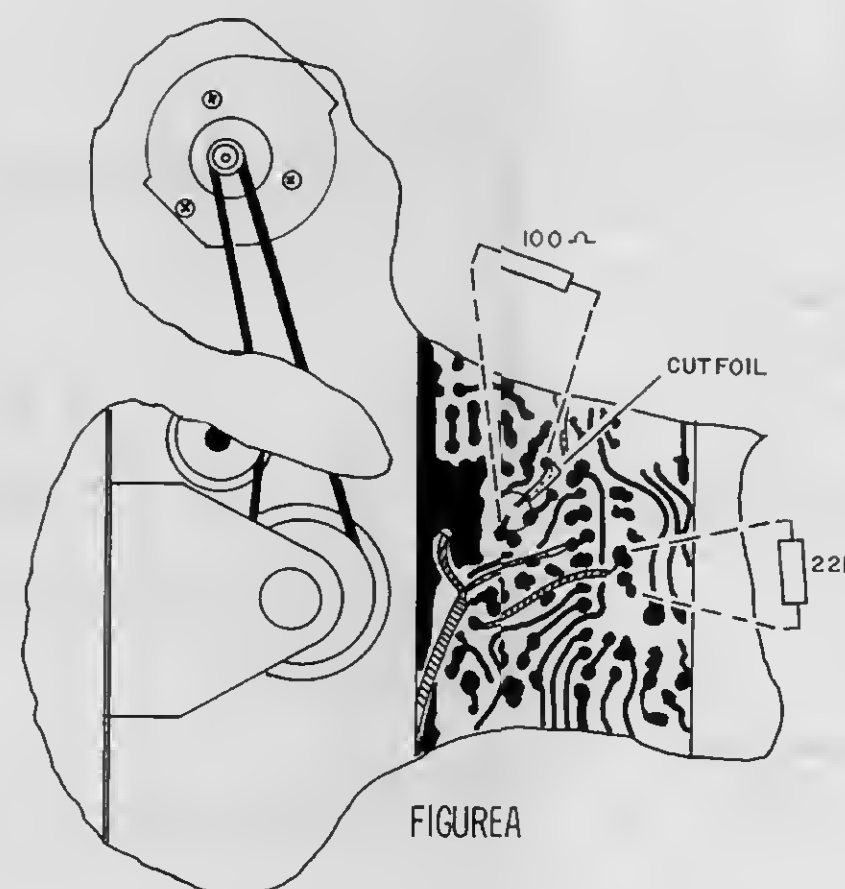
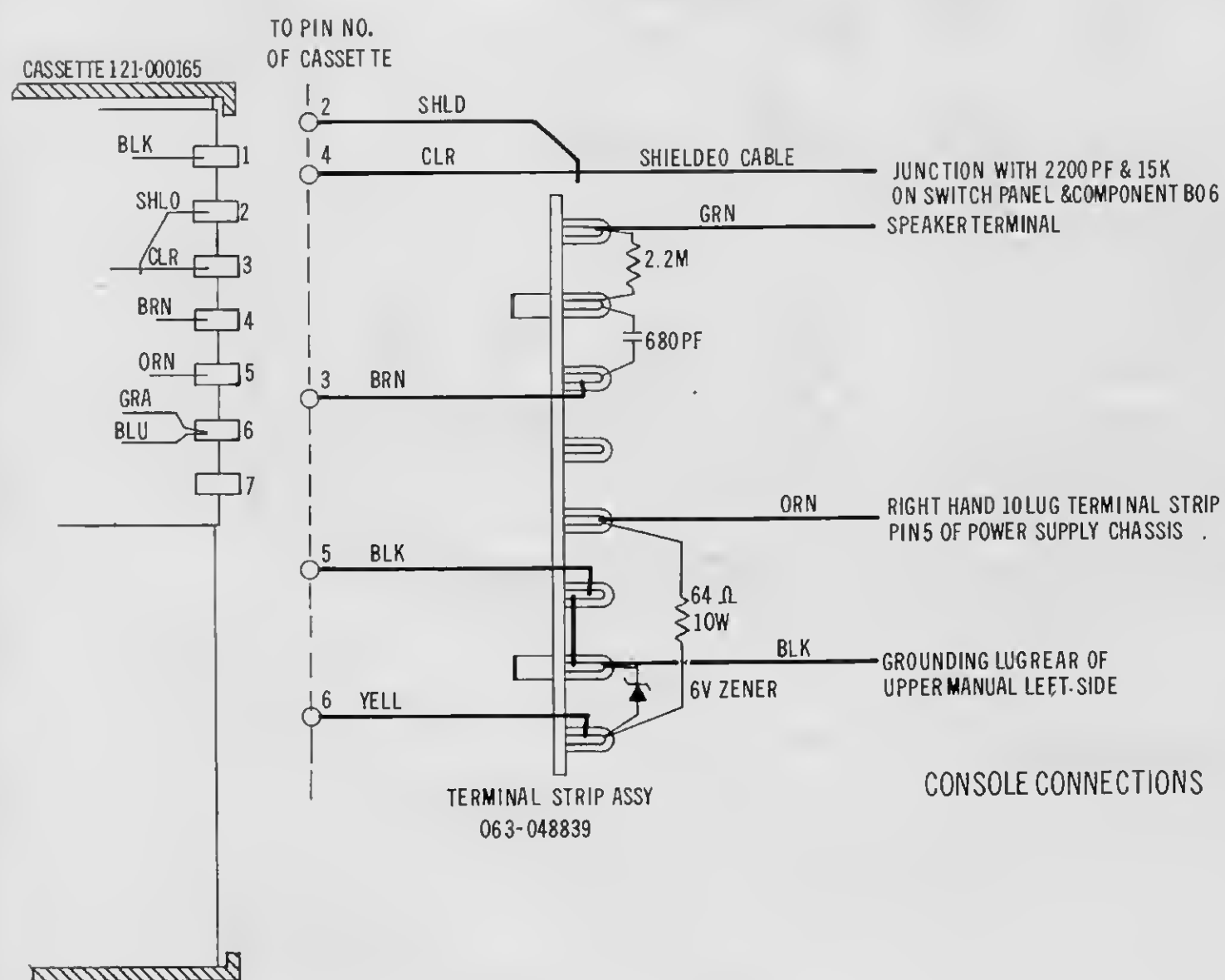


FIGURE 5-15
CASSETTE RECORDER ASSEMBLY
121-000139 & 121-000165,
LAYOUT & SCHEMATIC

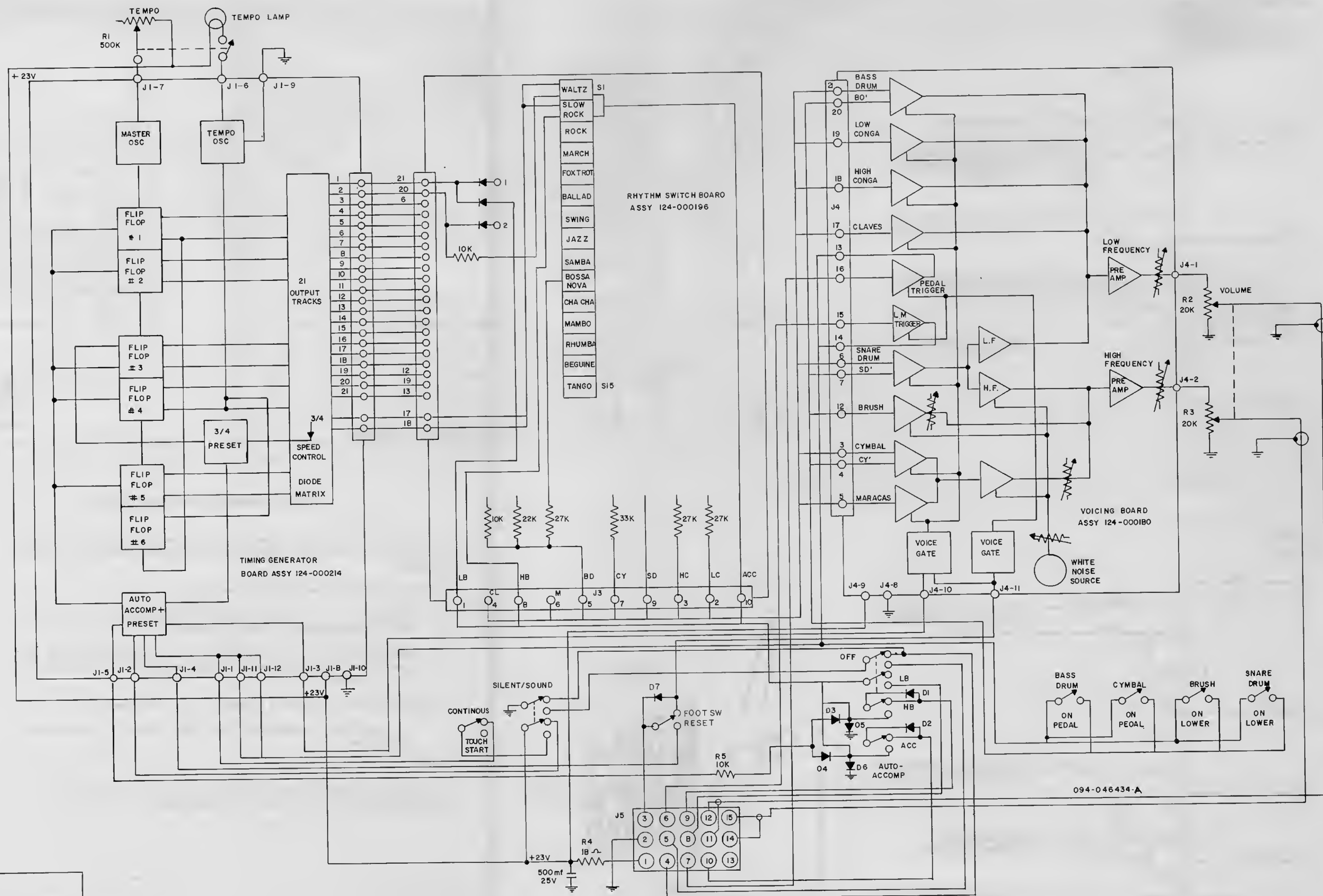


FIGURE 5-16
RHYTHM III
BLOCK LOGIC DIAGRAM
125-000082

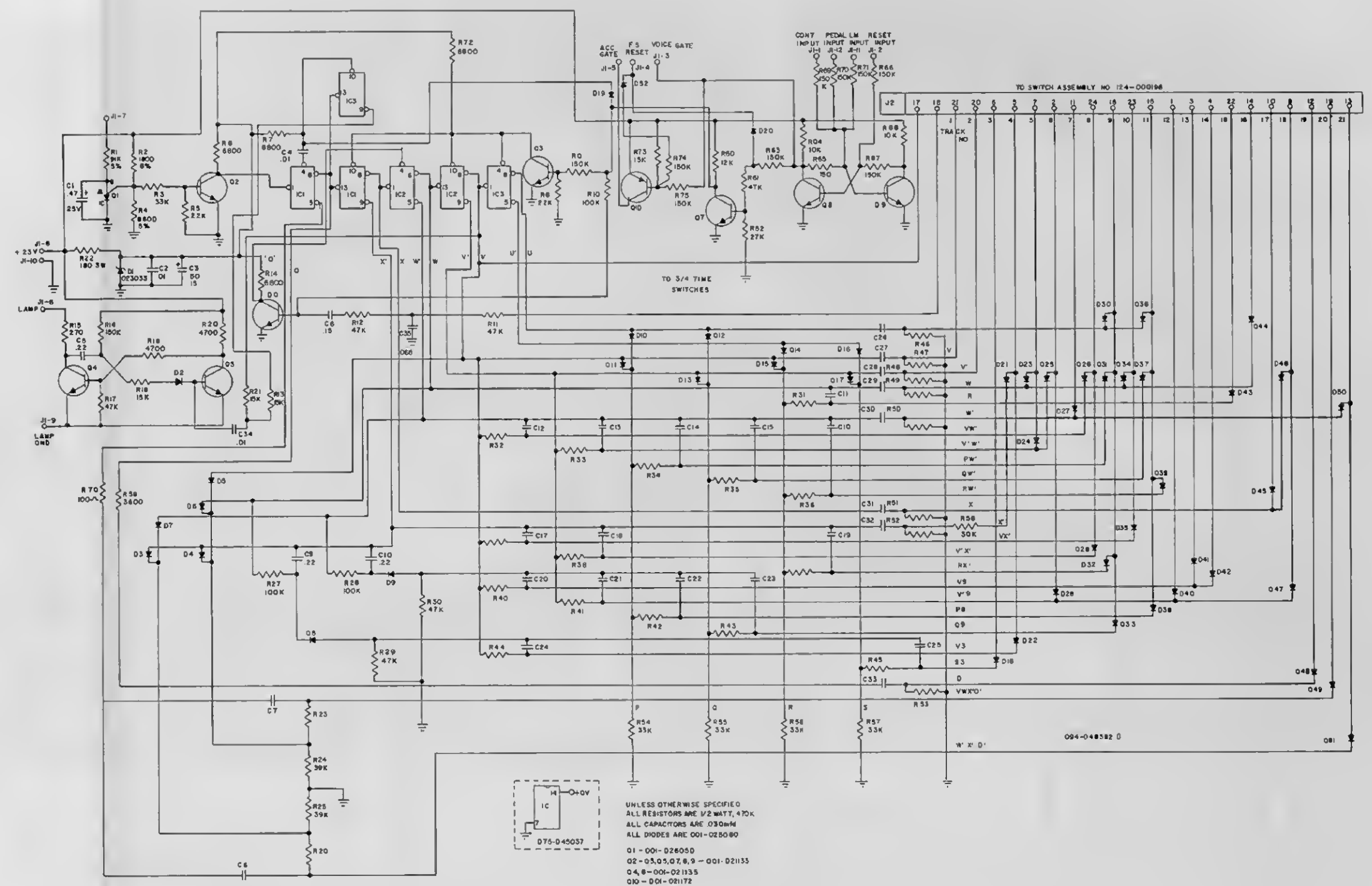
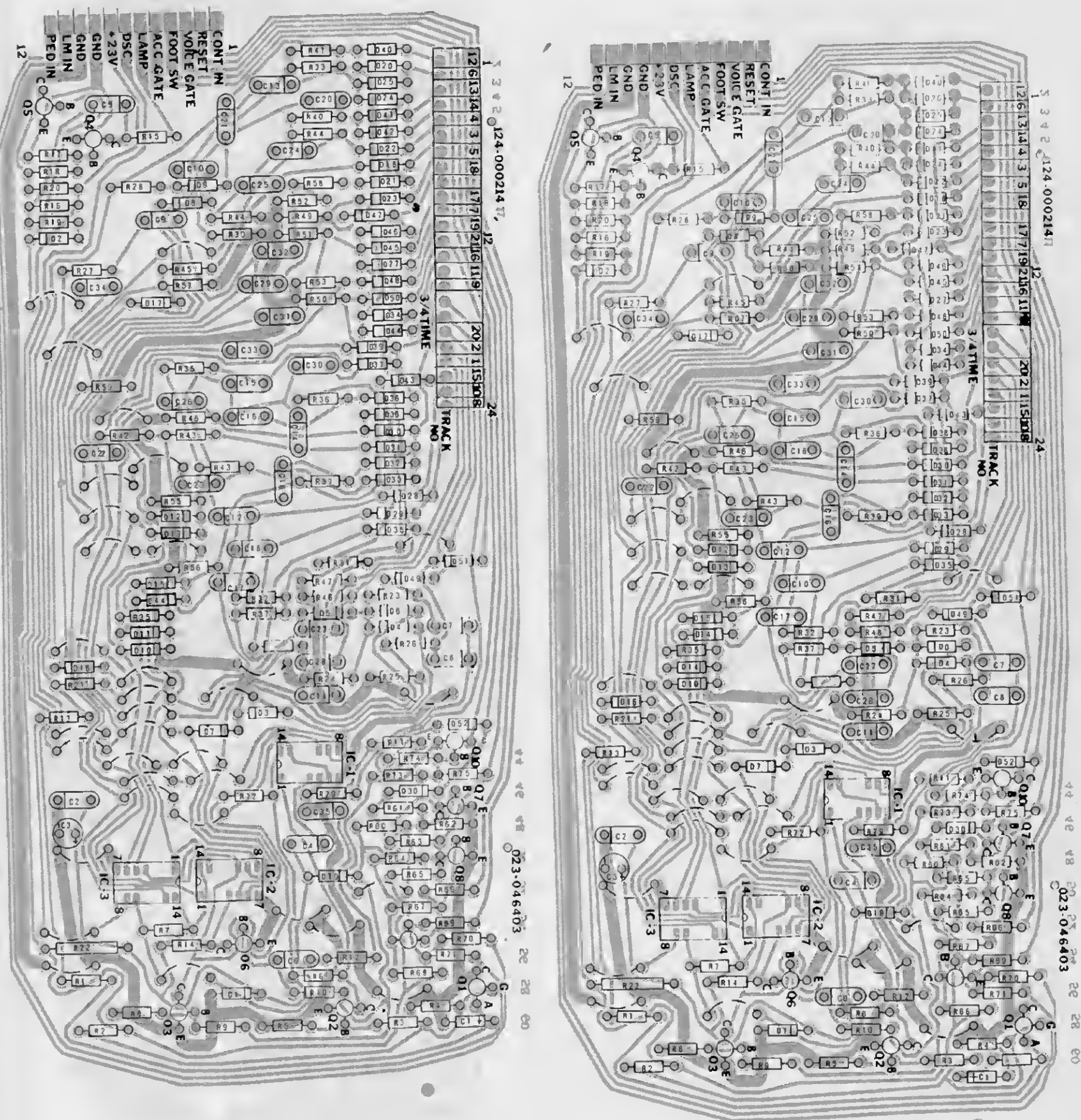


FIGURE 5-17
RHYTHM III GENERATOR & TRACK GATE
BOARD 124-000214,
LAYOUT & SCHEMATIC

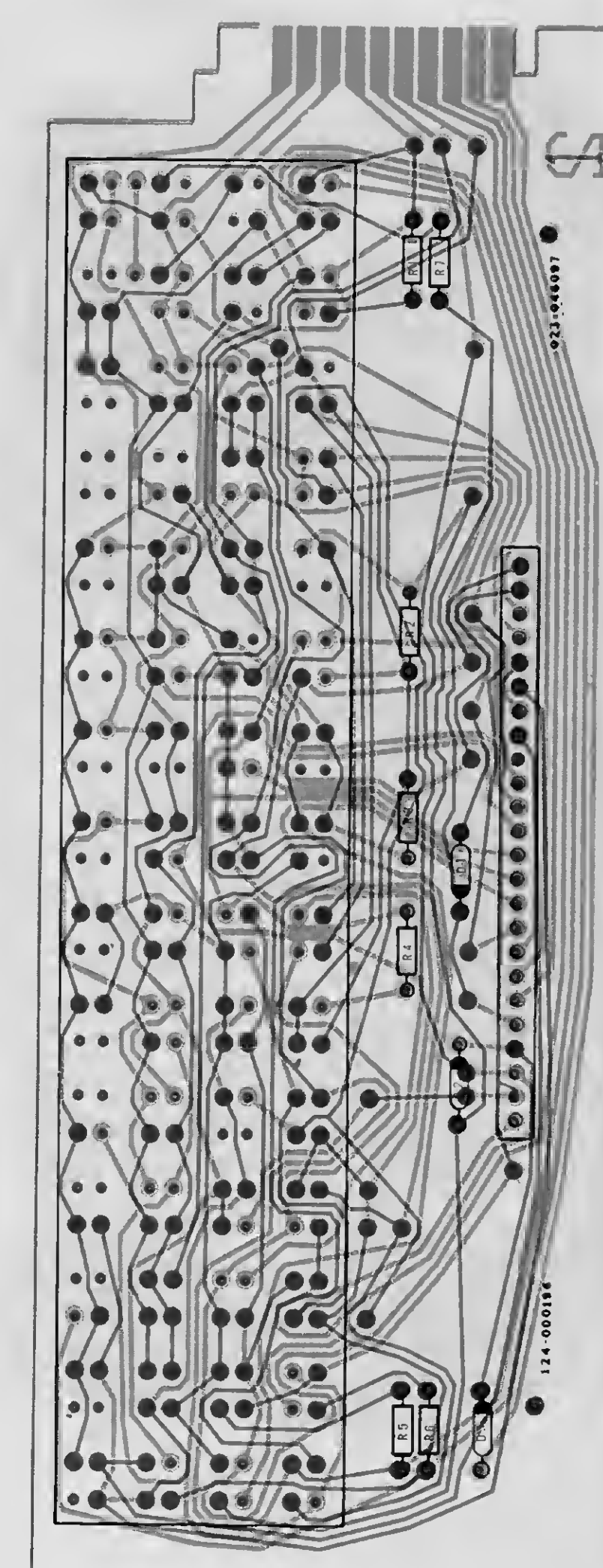
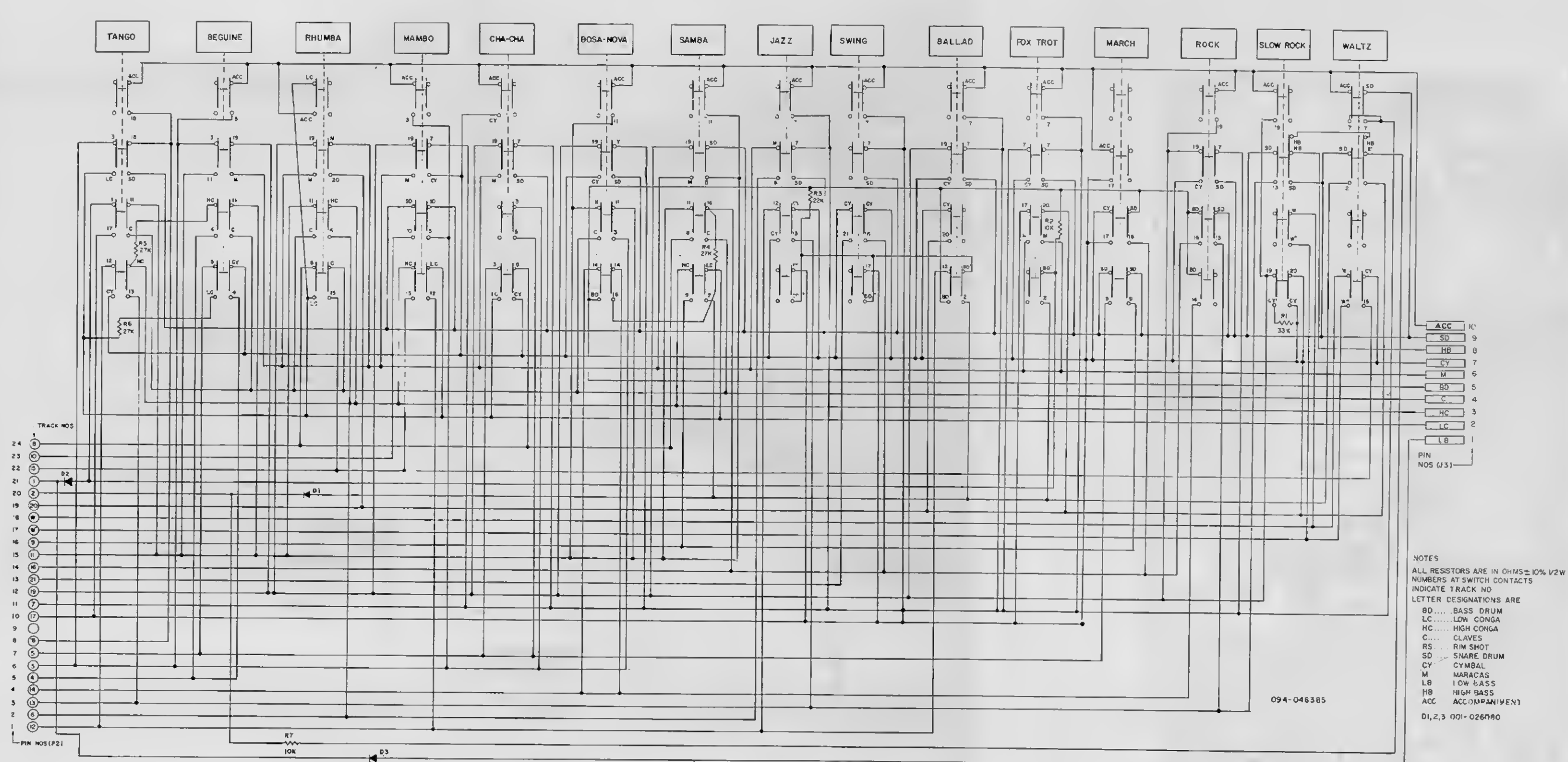


FIGURE 5-18
RHYTHM III SELECTOR SWITCH
BOARD 124-000196,
LAYOUT & SCHEMATIC

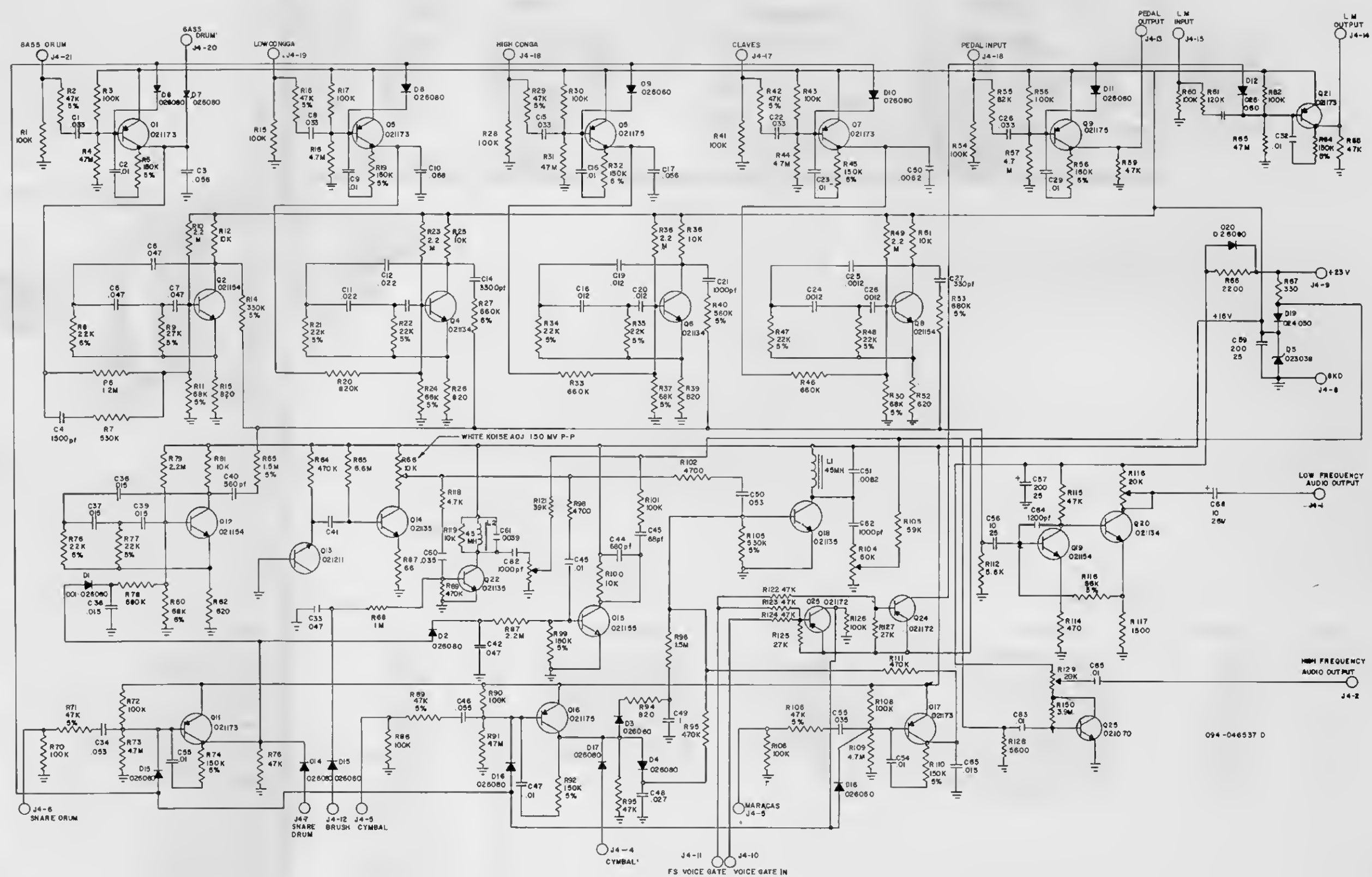
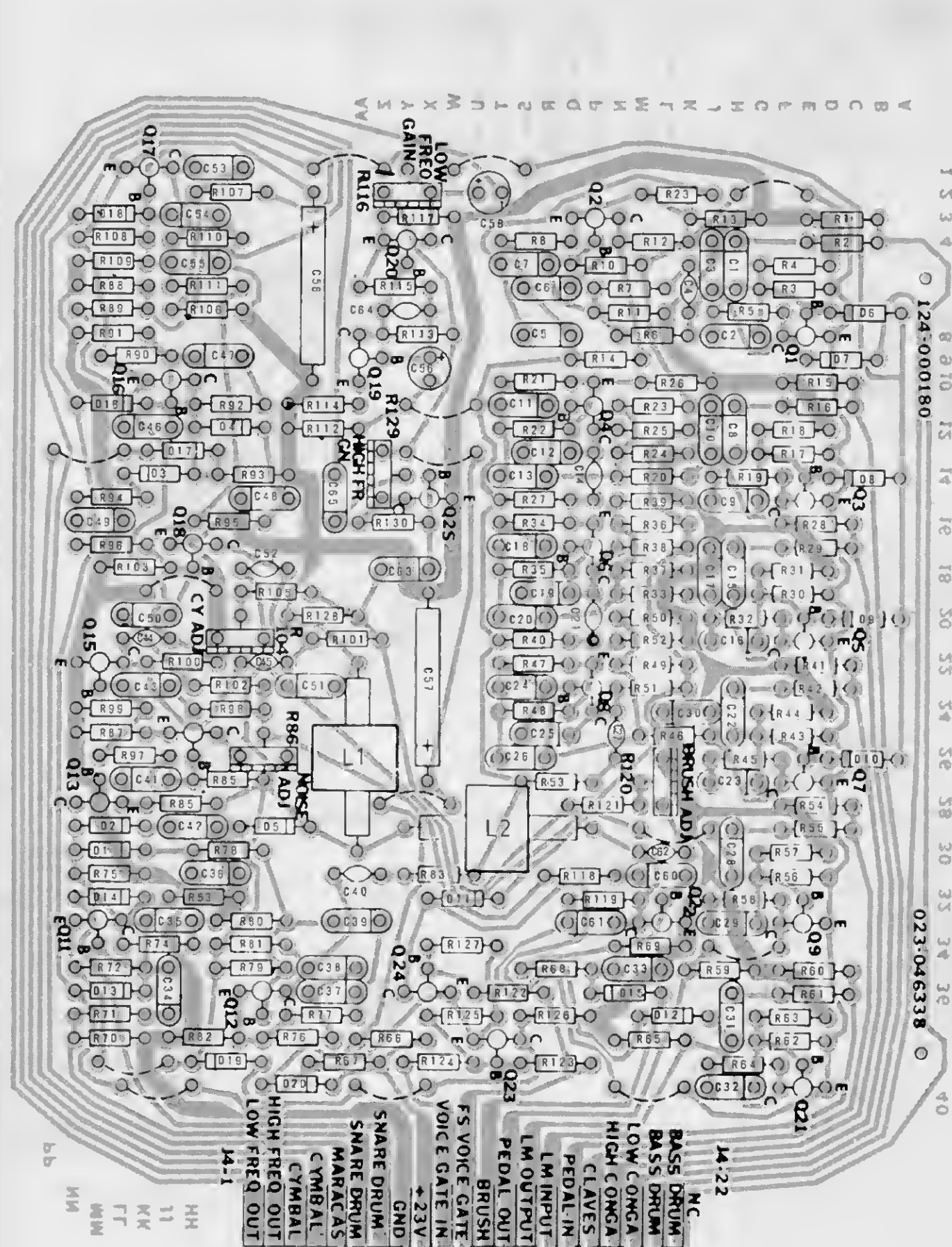
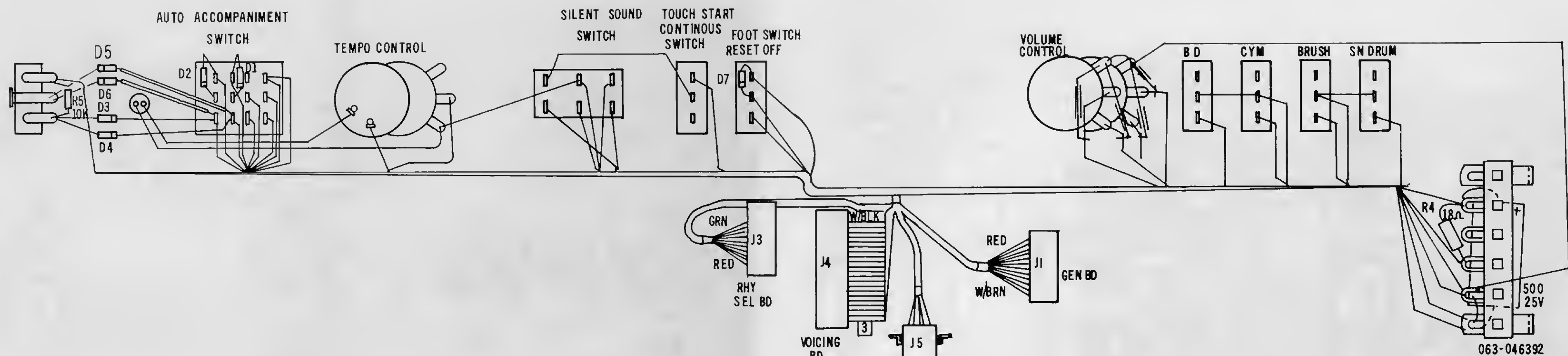


FIGURE 5-19
RHYTHM III VOICING
BOARD 124-000180,
LAYOUT & SCHEMATIC



PLUG J1 GENERATOR BOARD

PLUG J3 RHYTHM SELECTOR BOARD

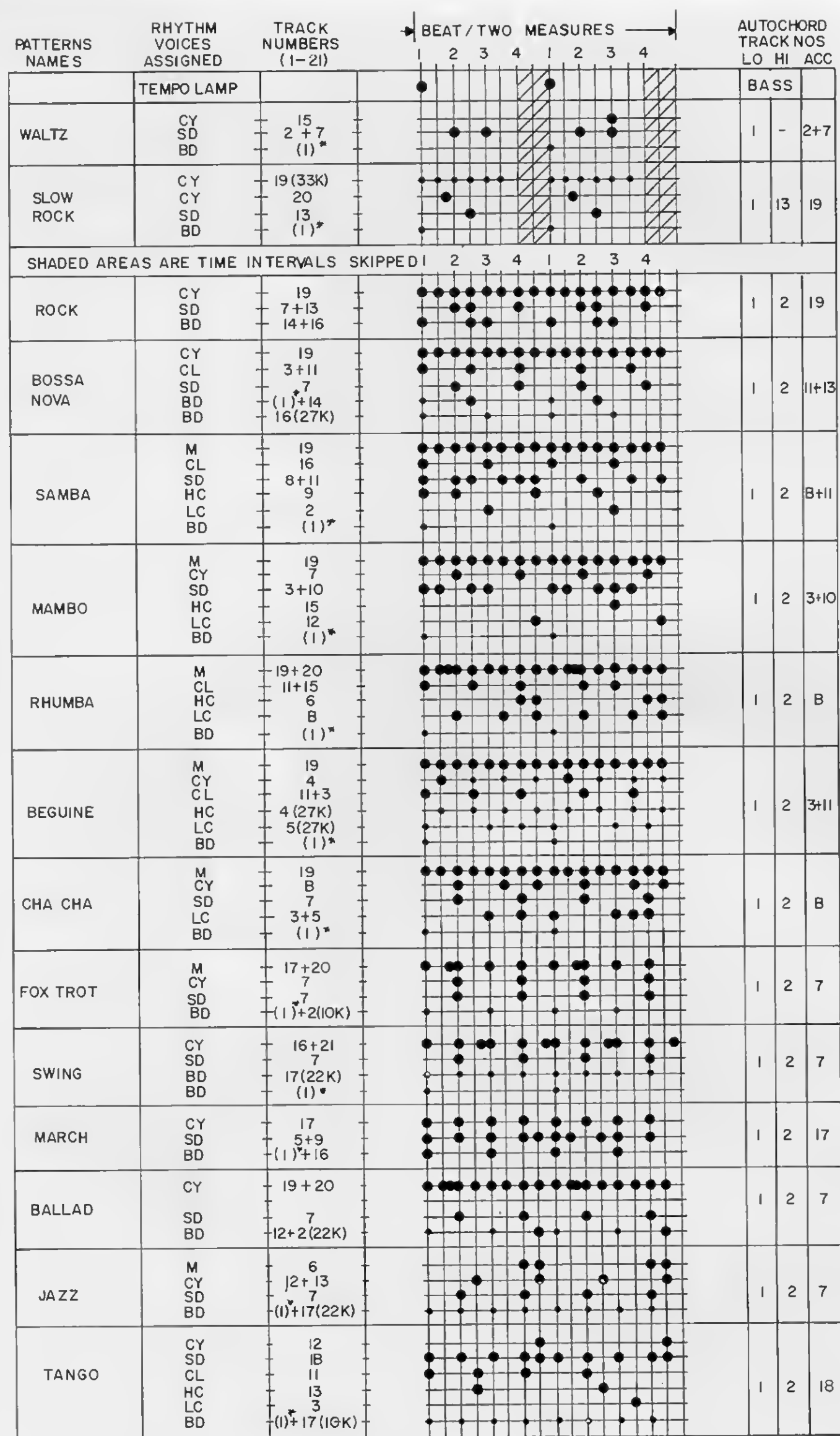
PLUG J4 VOICING BOARD

PLUG J5 RHYTHM INPUT - OUTPUT

PLUG J5 RHYTHM INPUT - OUTPUT

PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION
1	Red	Touch Start/Continuous Switch	1	Red	Auto Accompaniment Switch	1	#3 Cable	Volume Control Rhythms III	1	Red	Terminal Strip 063-046392	1	Blue	Top of Power Supply Assembly
2	Brown	Silent/Sound Switch	2	White/Violet	Pin #19 Plug J4 Rhythms III	2	#4 Cable	Volume Control Rhythms III	2	Black	Ground of Terminal Strip 063-046392	2	Black	Left Hand Terminal Strip Pin #8, +25V D.C.
3	Violet	Pin #10 of Plug J4 Rhythms III	3	White/Blue	Pin #18 Plug J4 Rhythms III	3	Brown	Pin #7 Plug J3 Rhythms III	3	White	Foot Switch Reset/Off Switch	3	Black	Tone Wheel Generator Grounding
4	Orange	Foot Switch Reset/Off Switch	4	White/Green	Pin #17 Plug J4 Rhythms III	4	Red	Cymbal Switch	4	Orange	Auto Accompaniment Switch	4	Black	Lug
5	Yellow	Terminal Strip 063-046392	5	White/Black	Pin #21 Plug J4 Rhythms III	5	Orange	Pin #6 Plug J3 Rhythms III	5	Brown	Auto Accompaniment Switch	5	Black	Pin #10 Expression Pedal Plug
6	Green	Tempo Control	6	Orange	Pin #5 Plug J4 Rhythms III	6	Yellow	Pin #9 Plug J3 Rhythms III	6	White/Orange	Pin #15 Plug J4 Rhythms III	6	White/Black	Pin #11 of Auto Chord Board
7	Gray	Tempo Control	7	Brown	Pin #3 Plug J4 Rhythms III	7	Green	Snare Drum Switch	7	White/Yellow	Pin #16 Plug J4 Rhythms III	7	Green	Pin #16 of Auto Chord Board
8	White/Red	Pin #9 Plug J4 Rhythms III	8	White/Orange	Auto Accompaniment Switch	8	Black	Ground of Terminal Strip 063-046392	8	Green	Auto Accompaniment Switch	8	White/Brown	Pin #17 of Auto Chord Board
9	White/Red	Terminal Strip 063-046392	9	Yellow	Pin #6 Plug J4 Rhythms III	9	White/Red	Silent/Sound Switch	9	Blue	Auto Accompaniment Switch	9	Gray	Pin #13 of Auto Chord Board
10	Black	Ground Terminal Strip 063-046392	10	Gray	Auto Accompaniment Switch	10	Violet	Pin #8 Plug J1 Rhythms III	10	Violet	Auto Accompaniment Switch	10	White/Orange	Pin #20 of Auto Chord Board
11	White/Black	Silent/Sound Switch	11	N/C	Auto Accompaniment Switch	11	White	Pin #3 Plug J1 Rhythms III	11	Clear	Volume Control	11	Yellow	Pin #7 of Auto Chord Board
12	Blue	Pin #14 Plug J4 Rhythms III	12	N/C	Auto Accompaniment Switch	12	White/Brown	Foot Switch Reset/Off Switch	12	N/C	Volume Control	12	Shield	Cable "L"
13	White/Brown	Pin #13 Plug J4 Rhythms III	13	Blue	Auto Accompaniment Switch	13	White/Brown	Cymbal Switch	13	Shield	Volume Control	13	Clear	Switch Panel & Component Assembly #6
14	Blue		14	Blue		14	Blue	Pin #12 Plug J1 Rhythms III	14	Clear		14	Shield	Open End of 18K between Reverb II & Volume Soft
15	White/Orange		15	White/Orange		15	White/Orange	Brush Switch	15	Clear		15	Clear	Cable "H"
16	White/Yellow		16	White/Yellow		16	White/Yellow	Pin #11 Plug J1 Rhythms III						Switch Panel 6 Component Assembly #6
17	White/Green		17	White/Green		17	White/Green	Pin #6 Plug J5 Rhythms III						Junction of 15K and White Wire
18	White/Blue		18	White/Blue		18	White/Blue	Pin #7 Plug J5 Rhythms III						from Switch Panel & Component
19	White/Violet		19	White/Violet		19	White/Violet	Pin #4 Plug J3 Rhythms III						Assembly #5
20	White/Gray		20	White/Gray		20	White/Gray	Pin #3 Plug J3 Rhythms III						
21	White/Black		21	White/Black		21	White/Black	Pin #2 Plug J3 Rhythms III						
22	N/C		22	N/C		22	N/C	Snare Drum Switch						
								Pin #5 Plug J3 Rhythms III						

FIGURE 5-20
RHYTHM III CABLE ASSEMBLY
011-046388



HC — HIGH CONGA
LC — LOW CONGA
RS — RIM SHOT
C — CLAVES
SD — SNARE DRUM
M — MARACAS
CY — CYMBAL
BD — BASS DRUM

Small Dots indicate attenuated loudness.
Bass Drum always connected to track 1 through 10K

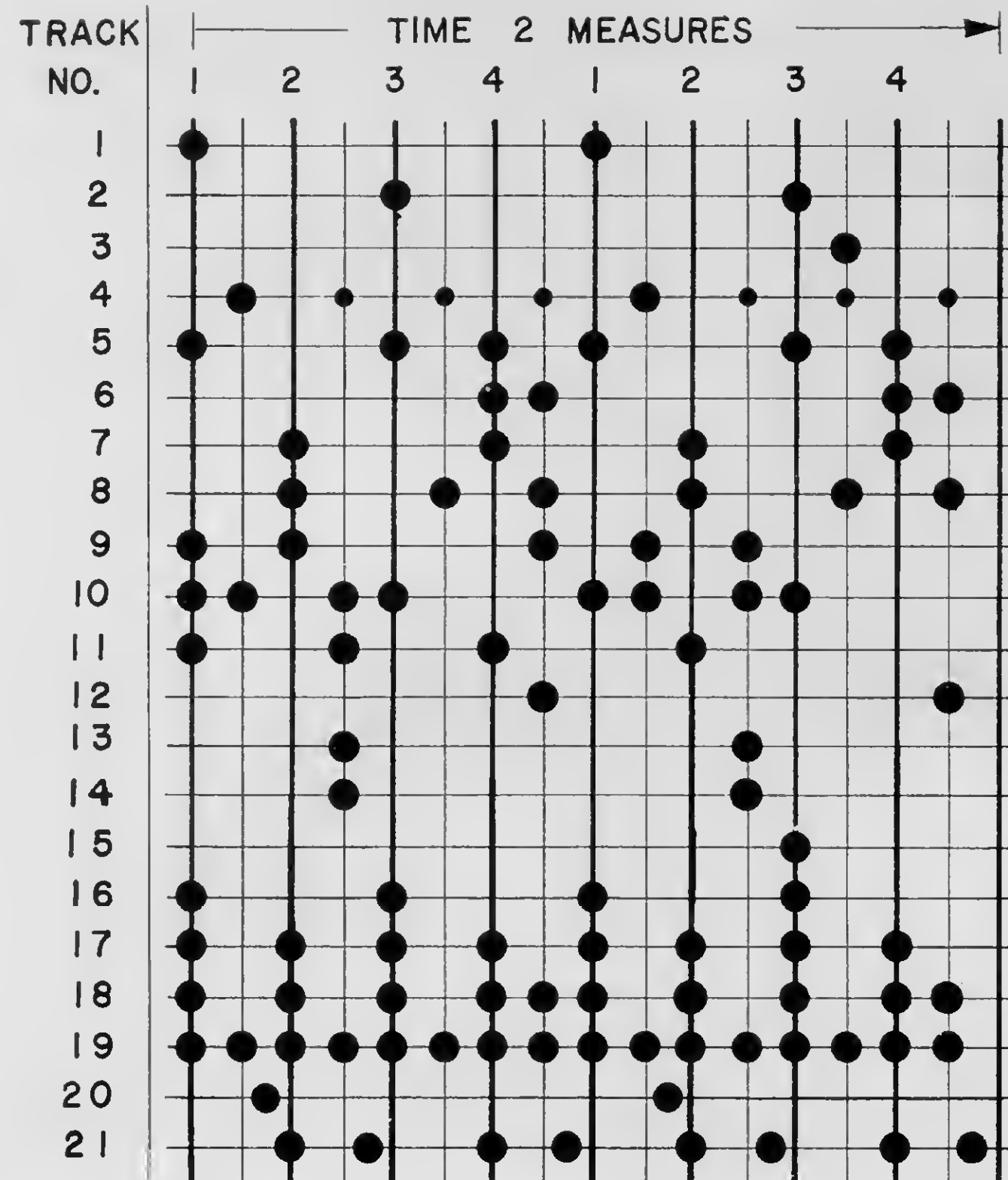


FIGURE 5-21
RHYTHM III
OUTPUT MATRIX TIMING
& VOICING PATTERNS CHARTS

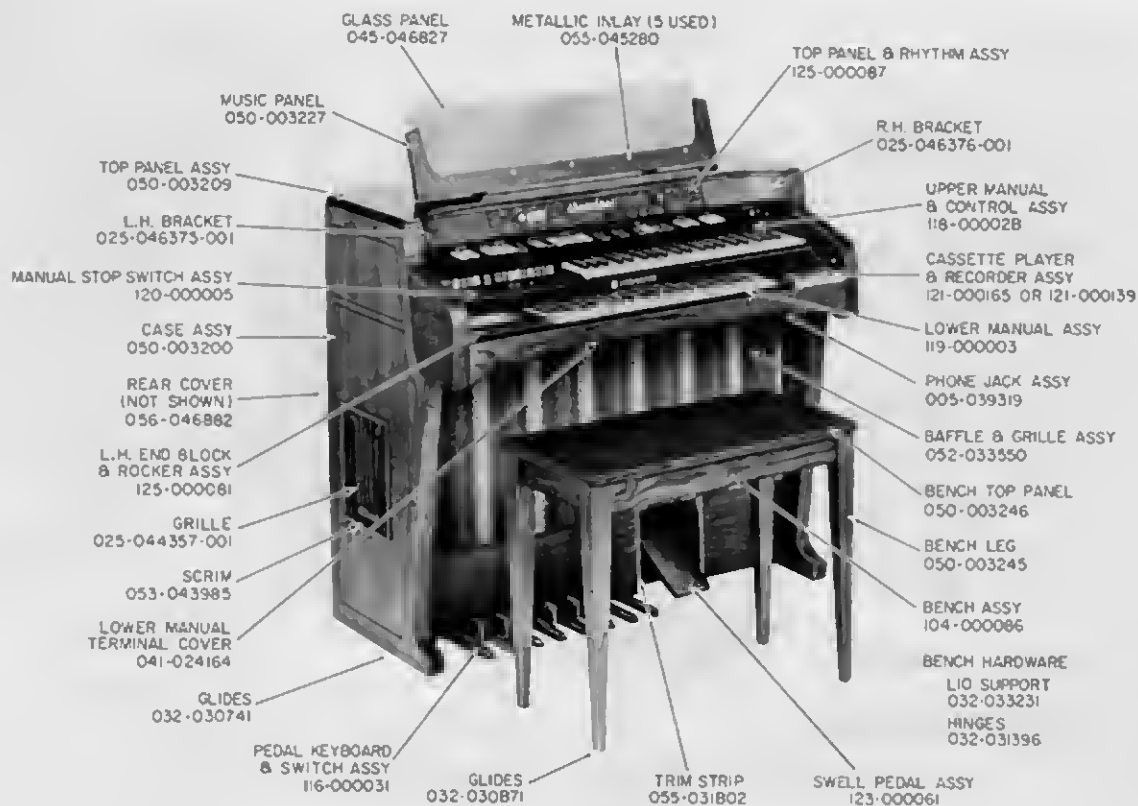
SECTION VI PARTS LIST

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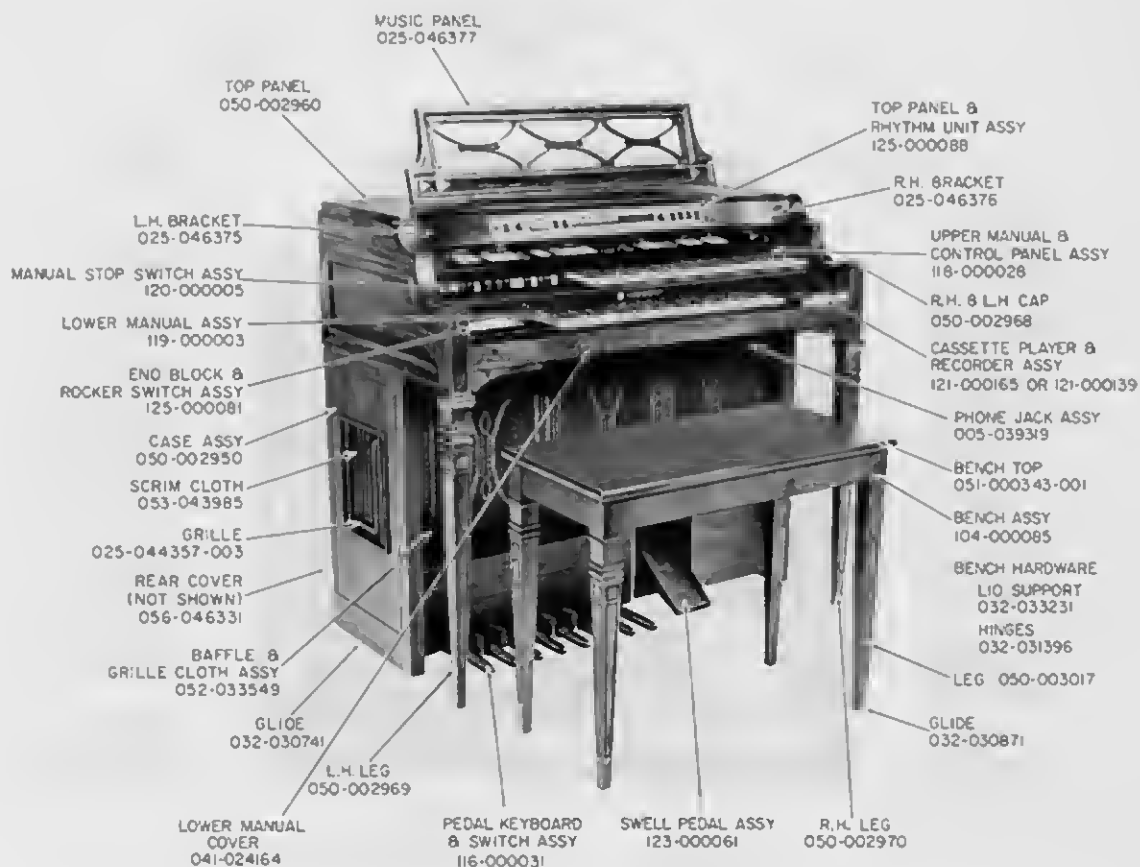
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Lower Manual Assembly		Push Button Knobs	
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Console (524C) Front View



Console (582C) Front View